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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,863	03/04/2002	Mihaela Van Der Schaar	US020067	5912

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

REKSTAD, ERICK J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/090,863	Applicant(s) VAN DER SCHAAR, MIHAELA	
	Examiner Erick Rekstad	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a first action for application no. 10/090863 filed on March 4, 2002 in which claims 1-21 are presented for examination.

Specification

The disclosure is objected to because of the following informalities: The disclosure contains an improper sentence. Specifically, the third line of paragraph [0010] on page 3 states "ine granular scalable decoding An SNR" which as best understood should state "An SNR".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by 'Macroblock-based Progressive Fine Granularity Scalable (PFGS) Video Coding with Flexible Temporal-SNR Scalabilities" to Sun et al.

[claim 1]

As shown in Figure 1, Sun teaches a method of coding video, comprising the steps of:

coding the video into a data-stream of base layer frames ;
computing residual image frames in a transform domain from the base layer frames;

constructing extended base layer reference frames from the base layer frames and at least portions of the residual image frames (Page 1026, Column 1 First Paragraph);

motion-compensating the extended base layer reference frames to produce motion-compensated extended base layer reference frames (Page 1026, Column 1 Last Paragraph);

predicting motion-compensated residual image frames from the motion-compensated extended base layer reference frames and the video (Page 1026, Column 1 Last Paragraph);

and fine granular scalable coding the motion-compensated residual image frames into a data-stream of temporal frames (Abstract, Pages 1026-1027 and Figures 1-3; Note: Equation (2) is used to determine the motion compensation).

[claims 2 and 3]

Sun teaches the method of coding video according to claim 1, further comprising the step of fine granular scalable coding the residual image frames into a data-stream of SNR quality frames (Page 1027 First Column First Paragraph). Sun further teaches the method of coding video according to claim 2, further comprising the step of combining the data-stream of temporal frames with the data-stream of SNR quality frames to construct a single data-stream of the temporal and SNR quality frames (Section 5. Conclusions Pages 1027-1028).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al.

[claims 4-6]

As shown above for claims 1-3, Sun teaches the method for coding video. Sun further teaches the method for streaming video over the Internet (Section 5. Conclusions Page 1027). It would have been obvious to one of ordinary skill in the art at the time of the invention that a method for coding video would be the same for coding a video signal (OFFICIAL NOTICE).

Claims 7-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun in view of US Patent 6,700,933 to Wu et al.

[claims 7-12]

Sun teaches the method of claims 1-3. Sun further teaches the method used in an encoder (Page 1026 Second Column First Paragraph). Sun teaches the method of Progressive Fine-Granularity Scalable video coding with temporal-SNR scalabilities (PFGST) builds upon the Progressive Fine-Granularity Scalable (PFGS) coding approach and provides improved coding efficiency (ABSTRACT). Sun does not specifically teach the encoder. As shown in Figure 3, Wu teaches a video encoding apparatus (62) and a decoding apparatus (66) that use an operating system on a

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processor to perform the software encoding/decoding operations (Col 5 Line 45-Col 6 Line 37). Wu teaches the encoding/decoding using a Progressive Fine-Granularity Scalable coding process as an improvement over the Fine-Granularity Scalable (FGS) coding process (Col 1 Lines 35-49, Col 2 Line 51-Col 3 Line 47). Wu further teaches the computer-readable medium having computer executable instructions that execute an encoding process (Col 25 Lines 1-4). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the PFGST method of Sun with the encoding/decoding system of Wu in order to further improve encoding efficiency.

[claims 13-18]

Sun teaches the PFGST method of encoding as shown above for claims 1-3. Sun further teaches the use of this method in MPEG-4. Sun teaches that the Fine-Granularity Scalable (FGS) video coding scheme is used for MPEG-4 and that the PFGS and PRGST video coding schemes are an improvement on the FGS scheme. Wu teaches a video decoding apparatus (66) that uses an operating system on a processor to perform the software decoding operation (Col 6 Lines 24-37). Wu teaches the decoding using a Progressive Fine-Granularity Scalable coding process as an improvement over the Fine-Granularity Scalable (FGS) coding process (Col 1 Lines 35-49, Col 2 Line 51-Col 3 Line 47). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the PFGST method in an MPEG-4 decoder as the PFGST is an improvement over the standard FGS method.

[claims 19-21]

As stated above for claims 13-18, Sun and Wu teach the method and apparatus for coding MPEG-4 using the PFGST method. Sun does not teach the use of memory medium for decoding. Wu teaches the computer-readable medium having computer executable instructions that execute an encoding process (Col 25 Lines 1-4). As shown in Figure 3, Wu further teaches the decoder (98) is stored in memory (92) (Col 6 Lines 24-37, Fig. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention that the decoder is computer executable instructions stored in a computer-readable medium.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,292,512 to Radha et al.

US Patent 6,263,022 to Chen et al.

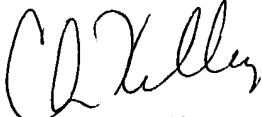
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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